Bioinspired Preparation of Thermo-responsive Graphene Oxide Nanocomposites in Aqueous Solution

Yingge Shi<sup>a,b</sup>, Ke Wang<sup>b</sup>, Meiying Liu<sup>a</sup>, Fengjie Deng<sup>a</sup>, Qing Wan<sup>a</sup>, Qiang Huang<sup>a</sup>, Lihua Fu<sup>c</sup>, Xiaoyong Zhang<sup>b,\*</sup>, Yen Wei<sup>b,\*</sup>

<sup>a</sup> Department of Chemistry and Jiangxi Provincial Key Laboratory of New Energy

Chemistry, Nanchang University, 999 Xuefu Avenue, Nanchang 330031, China. <sup>b</sup>

Department of Chemistry and the Tsinghua Center for Frontier Polymer Research,

Tsinghua University, Beijing, 100084, P. R. China. <sup>c</sup> School of Chemistry and

Chemical Engineering, Guangxi University, Nanning 530004, China.



Fig. S1 <sup>1</sup>HNMR spectrum of PNIPAM in deuterium oxide



Fig. S2 AFM images of GO (A), GO-PDA (B) and GO-PDA-PNIPAM (C).



Fig. S3 XPS C1s peak deconvolution of GO, GO-PDA, GO-PDA-PNIPAM and the assigned bonds

Table S1 Element contains (%) of GO nanocomposites based on XPS analysis

Samples	С	N	0	S
GO	67.9%	2.74%	27.35%	2.01%
GO-PDA	69.68%	2.92%	26.94%	0.46%
GO-PDA-PNIPAM	72.91%	5.09%	21.58%	0.42%